

ABSTRACT

The present invention comprises: a pixel sampling unit that samples a stated pixel value from each of domains constituting an endoscopic image received by an image input/output control circuit; a shape-of-range estimating unit that estimates the shape of a range within the endoscopic image according to the continuity of the distribution of the pixels indicating the stated pixel value; and an inserting direction determining unit that determines an inserting direction within a body cavity, in which an endoscope should be further inserted, on the basis of the estimated shape. The inserting direction is displayed together with the endoscopic image, whereby the direction of a lumen can be determined reliably despite a simple configuration.